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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/565,509	02/15/2007	Ken Murayama	TPO-5168	9801

7590 04/01/2009
Mattingly Stanger & Malur
104 East Hume Avenue
Alexandria, VA 22301

EXAMINER

NOLAND, THOMAS

ART UNIT	PAPER NUMBER
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2856

MAIL DATE	DELIVERY MODE
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04/01/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/565,509	Applicant(s) MURAYAMA ET AL.	
	Examiner Thomas P. Noland	Art Unit 2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9-15 is/are rejected.
- 7) ☒ Claim(s) 8 and 16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on Jan. 23, 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>20060123</u> | 6) <input type="checkbox"/> Other: _____ |

1. The preliminary amendment filed Jan. 23, 2006 has been entered.
2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.
3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
5. Claims 1, 3, 5-7 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Shuichi JP 10-2267948. Note abstract and drawings. Shuichi referred to as Document 1 in the PCT examination report.

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Document 1 describes a probe replacing method for a scanning probe microscope comprising a scanning probe microscope having a setting station holding a plurality of cantilevers, and XY stage for moving the position of the setting station, and an optical microscope for observing the position of the attached cantilever, with a step for selecting one cantilever from the setting stage and attaching it to the support unit and a step for setting the attached cantilever to the specified position of the field of observation of the optical microscope by moving the cantilever with the projecting part being moved by the XY stage after cantilever adjustment.

The projecting part in the probe replacement method described in document 1 is the pushing member pushing the inner side surface of the cantilever holder.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shuichi in view of Takashi JP 2000-329772. Note abstract and drawings of Takashi and that Takashi is referred to as Document 2 in the PCT examination report and that lack of inventive step is taken to be the same as obvious to one of ordinary skill in the art at the time the invention was made.

Document 2 describes a technique for setting a cantilever to a specified position of the observation field of an optical microscope by using an adjustment mechanism to move the optical microscope after replacing the probe of a scanning probe microscope.

The invention of claim 2 does not appear to involve an inventive step over documents 1 and 2 cited in the ISR. Use of the technique for setting a cantilever to a specified position of the observation field of an optical microscope by moving the optical microscope for the probe replacement method described in document 1 would be easy for a person skilled in the art.

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8. Claims 4 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shuichi in view of Takeshi JP 2002-323426. Note abstract and drawings of Takeshi and that Takeshi is referred to as Document 3 in the PCT examination report.

Document 3 describes a technique for a scanning probe microscope having an optical microscope to use the image obtained by the optical microscope to perform pattern recognition and image processing for automatic focusing.

The inventions of claims 4 and 12 do not appear to involve an inventive step over documents 1 and 3 cited in the ISR. Use of the pattern recognition and image processing described in document 3 for the probe replacement method described in document 1 would be easy for a person skilled in the art.

9. Claims 10-11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shuichi in view of Takashi and Takeshi.

The inventions of claims 10 and 13 do not appear to involve an inventive step over documents 1 to 3 cited in the ISR. Document 2 describes a technique for optical axis adjustment by adjusting the position of the laser light source. Further, for the probe replacement method described in document 1 it is recognized that the tip position of the cantilever in the process of digital signal processing is memorized as a numerical value (coordinate).

10. Claims 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shuichi in view of Takashi and Takeshi as applied to claim 13 above, and further in view of Keiko et al JP 10-104245. Note abstract and drawings of Keiko et al and that Keiko et al is referred to as Document 4 in the PCT examination report.

Document 4 describes a technique for automatic optical axis adjustment by adjusting the position of the laser light source.

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references show storage of removable cantilevers.

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12. Claims 8 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom Noland whose telephone number is (571) 272-2202. The examiner can normally be reached on weekdays from 9:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Hezron E. Williams, can be reached on (571) 272-2208.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to 2800 Customer Service at (571) 272-2815.

**/Thomas P. Noland/
Primary Examiner
Art Unit 2856**

March 29, 2009

Notice of References Cited	Application/Control No. 10/565,509		Applicant(s)/Patent Under Reexamination MURAYAMA ET AL.	
	Examiner Thomas P. Noland		Art Unit 2856	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-3,164,255 A	01-1965	JAY RICHARD S	211/60.1
*	B	US-5,499,724 A	03-1996	Hickman, Claude R.	211/70.6
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

20/565509

IAP20050101 23 JAN 2006
TPO-5168

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Ken MURAYAMA, et al

Serial No.: not yet assigned

Filed: January 23, 2006

For: PROBE REPLACEMENT METHOD FOR SCANNING PROBE
MICROSCOPE

Group: not yet assigned

Examiner: not yet assigned

**INFORMATION DISCLOSURE STATEMENT
UNDER 37 CFR §1.97 & 1.98**

MS Amendment

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

January 23, 2006

Sir:

In the matter of the above-identified application, applicants are submitting herewith a copy of a communication from a foreign patent office in a counterpart foreign application and copies of the documents listed in the attached form equivalent to Form PTO-1449 for the Examiner's consideration.

This information disclosure statement is being submitted with the new application.

The documents listed on the attached form equivalent to Form PTO-1449 are not in the English language, the requirement of 37 CFR 1.98(a)(3) for a concise explanation of the relevance is satisfied by the attached English language abstracts.

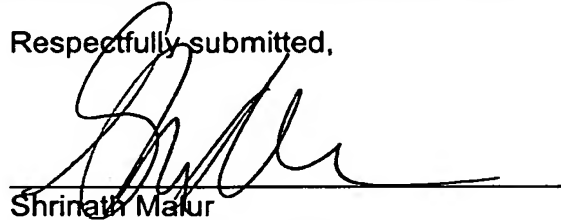
10/565509

IAP20 REC'D FGN TTS 23 JAN 2006

It is respectfully requested that this information disclosure statement be considered by the Examiner.

Please charge any shortage in the fees due in connection with the filing of this paper, including extension of time fees, to the deposit account of MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C., Deposit Account No. 50-1417 (TPO-5168) please credit any excess fees to such deposit account.

Respectfully submitted,



SM/nac
(703) 684-1120

Shrinath Malur
Registration No. 34,663
MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C.

IAP20 Rec'd PTO 23 JAN 2006

Form PTO-1449	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DKT. NO. TPO-5168	SERIAL NO. NOT YET ASSIGNED 36/565509
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)		APPLICANT Ken MURAYAMA, et al	
		FILING DATE January 23, 2006	GROUP Not Yet Assigned

U.S. PATENT DOCUMENTS

Examiner Initial	Document Number	Date	Name	Class	Subclass	Filing Date
AA						
AB						
AC						
AD						
AE						
AF						
AG						
AH						
AI						
AJ						
AK						
AL						

FOREIGN PATENT DOCUMENTS

Examiner Initial	Document Number	Date	Country	Class	Subclass	Abstract	
						Yes	No
/TPN/	AM 10-104245	04/98	JP	X	X	X	
↓	AN 10-267948	10/98	JP			X	
↓	AO 2000-329772	11/00	JP			X	
↓	AP 2002-323426	11/02	JP			X	
/TPN/	AQ 97/08733	3/97	WO			X	
	AR						
	AS						
	AT						

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	AU	
	AV	
	AW	
	AX	
	AY	
	AZ	
Examiner	/Thomas Noland/	Date Considered 03/29/2009

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